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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,959	01/15/2004	Linda Gail Bernard	71111 US 04	5051

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Dennis V. Carmen
Eastman Chemical Company
P.O. Box 511
Kingsport, TN 37662-5075

EXAMINER	
HAIDER, SAIRA BANO	
ART UNIT	PAPER NUMBER
1711	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/757,959	BERNARD ET AL.	
	Examiner	Art Unit	
	Saira Haider	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02/01/2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-56* is/are pending in the application.

4a) Of the above claim(s) *30-56* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *19-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 19, 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speer et al. (US 5529833) in view of Christiani et al. (US 6,747,560).

3. Speer discloses film structures using oxygen scavengers. Specifically, an oxygen scavenging composition comprising: (a) an ethylenically unsaturated hydrocarbon and (b) a transition metal catalyst. Wherein the composition is incorporated into a layer such as a film layer, and novel articles for packaging oxygen sensitive products can be prepared therefrom (col. 3, lines 20-44).

4. Preferred substituted ethylenically unsaturated hydrocarbons include, but are not limited to, those with oxygen-containing moieties, such as esters and/or ethers. Such hydrocarbons also include polymers or copolymers derived from (meth)allyl (meth)acrylates (col. 4, lines 35-62).

5. Speer discloses that an ethylenically unsaturated hydrocarbon, (a), and transition metal catalyst, (b), may be further combined with one or more polymeric diluents, such as thermoplastic polymers which are typically used to form film layers in plastic packaging articles. Selecting combinations of diluent and (a) depends on the properties desired. Polymers which can be used as the diluent include, but are not limited to, polyethylene terephthalate (PET), polyethylene, ethylene-alkyl (meth)acrylates, in addition to others (col. 5, lines 40-67).

6. Speer discloses that suitable multi-layered articles include, but are not limited to, rigid containers, flexible bags, or combinations of both, wherein Speer discloses a multi-layer film comprised of five layers (col. 3, lines 66-67; col. 10, lines 59 to col. 12, line 65).

7. Speer fails to discloses that the oxygen scavenging composition is blended with recycled polyester; however, it would have been obvious to one of ordinary skill in the art at the time of the invention to employ recycled polyester in order to decrease the cost of initial ingredients. Wherein it appears that the invention would perform equally well with recycled polyester or polyester.

8. In reference to the claimed first layer, Speer discloses an oxygen barrier layer adjacent to an oxygen-scavenging layer. The oxygen barrier layer can comprise polyamides with silica layers (col. 7, line 11 to col. 8, line 12).

9. However, Speer fails to disclose that the an oxygen barrier layer comprises platelet particles derived from at least one layered silicate material. Hence attention is directed towards the Christiani reference. Christiani discloses a polymeric nanocomposite comprising a polymeric phase have dispersed therein platelet particles derived from swellable intercalcated layered materials (col. 1, lines 13-17). Christiani discloses that the swellable layered materials are derivatized with a swelling/compatibilizing agent in order to increase the compatibility and bonding of the layers with the polymer melt (col. 6, lines 36-46). Suitable layered materials include montmorillonite (col. 6, lines 65-41), and suitable swelling/compatibilizing agents include alkoxy based ammonium cations (col. 8, line 31+). Christiani discloses that preferred thermoplastic polymers include polyamides (col. 18, lines 22+). Christiani discloses that the above discusses platelet particles of high strength and modulus dispersed at the nanoscale impart greater mechanical reinforcement to the polymer matrix than do comparable loading of conventional reinforcing fillers of micron size. Additionally, the nanoscale barrier layers of the platelet particles impart lower permeability to polymers than do comparable loadings of conventional barrier fillers (col. 3, lines 43-54). Christiani discloses that the nanocomposite composition is especially useful for fabrication of films for use in food packaging (col. 24, lines 9-53).

10. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize (in the invention of Speer) the polyamide platelet dispersed layer of Christiani as the oxygen barrier layer instead of the conventional oxygen barrier layer disclosed by Speer. The motivation for the substitution includes utilizing a layer with compatibility and bonding of the platelet particles with the polymer, greater mechanical reinforcement, and oxygen barrier properties (decrease in permeability).

11. In reference to claims 24-29, Speer fails to disclose the inclusion of the claimed platelet particles in the oxygen scavenging layer. Thus attention is directed towards the Christiani reference, which applies as above, and discloses that the platelet particles are suitable with a variety of thermoplastic polymers including polyesters (col. 18, lines 21-25). Additionally, Christiani recognizes formation of molded articles and film structures utilizing the inventive platelet composition. Christiani discloses that the molded articles prepared from the inventive platelet composition derive various advantages over products without the platelet particles, advantages include increased modulus, stiffness, wet strength, dimensional stability, heat deflection temperature, and decreased moisture absorption, flammability, permeability, and molding cycle time (col. 24, lines 26-32).

12. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the oxygen scavenging layer of Speer the platelet particles of Christiani in order to improve the modulus, stiffness, wet strength, dimensional stability, and heat deflection temperature of resulting articles.

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Speer et al. (US 5529833) in view of Christiani et al. (US 6,747,560) as applied to the claims above, and further in view of Shaler, Jr. (US 3,267,065).

14. The disclosure of Speer and Christiani is provided above, the references fail to disclose Wyoming sodium montmorillonite or Wyoming sodium bentonite, as claimed. Hence attention is directed towards the Shaler, Jr. reference, which recognizes Wyoming bentonite as functionally equivalent to montmorillonites, wherein both are recognized as swellable, cation-exchangable, inorganic natural clays (col. 1, lines 45+). Thus, since the two types of clays were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute Wyoming bentonite for montmorillonite in the invention taught above by the combination of Speer and Christiani.

Double Patenting

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 19-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,777,479. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims the polymer-platelet composition, as claimed herein; however, fails to claim multiple layers.

Nevertheless, the enabling disclosure makes known this limitation. Therefore the invention defined in the herein claims would have been an obvious variation of the invention of the patent.

17. Claims 19-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,610,772. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims the polymer-platelet composition, as claimed herein; however, fails to claim multiple layers. Nevertheless, the enabling disclosure makes known this limitation. Therefore the invention defined in the herein claims would have been an obvious variation of the invention of the patent.

18. Claims 19-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-47 of U.S. Patent No. 6,455,620. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims the polymer-platelet composition, as claimed herein; however, fails to claim multiple layers. Nevertheless, the enabling disclosure makes known this limitation. Therefore the invention defined in the herein claims would have been an obvious variation of the invention of the patent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saira Haider whose telephone number is (571) 272-3553. The examiner can normally be reached on Monday-Friday from 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Saira Haider
Examiner
Art Unit 1711

James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700